

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: September 9, 1993

Date Received: September 7, 1993

Project: 7238, Process Sump Effluent, PO# M30745

Date Samples Extracted: September 7, 1993

Date Extracts Analyzed: September 8, 1993

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC**

Samples Processed Using Method 3005

Results Reported as $\mu\text{g/L}$ (ppb) mg/L (ppm)

BTB
9/21/93

<u>Sample #</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M30745	21	9.3	18	0.4

Quality Assurance

Blank	<0.05	<0.05	<0.05	<0.05
M30745 (Duplicate)	20	8.8	17	0.4
M30745 (Matrix Spike) % Recovery	ai	73%	ai	90%
M30745 (Matrix Spike Duplicate) % Recovery	ai	81%	ai	94%
Spike Blank % Recovery	98%	96%	97%	95%
Spike Level	5	5	10	5

ai The amount spiked was insufficient to give meaningful recovery data.

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**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR pH**

Sample #

pH

M30745

9.55

Qualtiy Assurance

M30745

9.50

9. BTB-E
9.7.93
10:53 AM

Send Report To: Alaskan Copper Works Contact Gerald Thompson
Company _____
Address P.O. Box 3546
City, State, Zip Seattle WA 98124
Phone # (206) 623-5800 Date _____

[illegible]AKC-0013479

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3008-B 16th Avenue West
Seattle, WA 98119
FAX: (206) 283-5044

September 9, 1993

DUPLICATE COPY

INVOICE # 93ACU0909-1

Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project 7238, Process Sump Effluent, PO# M30745: Results of testing
requested by Gerald Thompson, Project Leader and submitted on September
7, 1993.

1 water sample analyzed for pH @ \$10 per sample	\$ 10.00
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1 water sample analyzed for Chromium, Copper, Nickel, Zinc @ \$65 per sample	<u>65.00</u>
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Amount Due	\$ 75.00
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Seattle, WA 98119
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September 9, 1993

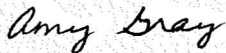
Gerald Thompson, Project Leader
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on September 7, 1993 from Project 7238, Process Sump Effluent, PO# M30745.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,



Amy M. Gray
Chemist

AMG/sao

Enclosures